

April 10, 2015

Via Federal Express
Via E-Mail (rumrill.nancy@epa.gov)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IX
Drinking Water Protection Section
Mail Code WTR-3-2
75 Hawthorne Street
San Francisco, California 94105
Attn: Nancy Rumrill

**Re: Florence Copper Project-Comments of the Town of Florence, Arizona
to Draft Underground Injection Control Permit R9UIC-AZ3-FY11-1 ("Draft
Permit")**

Dear Ms. Rumrill:

The Town of Florence (the "Town") would like to thank the United States Environmental Protection Agency ("EPA") for this opportunity to provide EPA with the Town's comments regarding the Draft Permit.

First, the Town would like to draw EPA's attention to the enclosed April 10, 2015 correspondence that was prepared for the Town by Southwest Groundwater Consultants ("SGC"). The above correspondence from SGC (the "SGC Correspondence") evaluates the potential adverse effects associated with Florence Copper, Inc.'s plans to engage in copper mining operations within the boundaries of the Town. The enclosed SGC Correspondence constitutes a portion of the Town's comments regarding the Draft Permit.

According to SGC, which conducted the work that is discussed in the SGC Correspondence some years before the current controversy arose, it is reasonably anticipated that groundwater from the Lower Basin Fill Unit ("LBFU") immediately down gradient from Florence Copper's proposed Pilot Test Facility ("PTF") will be an important source of groundwater for the Town in the future. At the time Magma Copper Company applied for its UIC permit for this site in 1996, the area north of the Town of Florence and the Gila River consisted primarily of unincorporated, privately held and State-owned land. Because of past changes in surface land use and settlement patterns, however, this is no longer the case. Thus, as the SGC Correspondence indicates, potential groundwater contamination from the PTF and,

Nancy Rumrill
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
April 10, 2015
Page 2

subsequently, any full scale mining operations by Florence Copper may have an adverse effect on groundwater that is of immense importance to the Town.

In addition to submitting the SGC Correspondence to EPA as part of the Town's comments regarding the Draft Permit, the Town also joins in and supports the comments regarding the Draft Permit that have been submitted to EPA by Southwest Value Partners ("SWVP") in that April 10, 2015 letter from SWVP's counsel, Ronnie P. Hawks, Esq., of Jennings, Haug & Cunningham. In the above letter (and the attachments and exhibits thereto), SWVP provides a detailed analysis of the deficiencies associated with the Draft Permit. The above correspondence from SWVP's counsel and the attachments and exhibits thereto are hereby collectively referred to as the SWVP Comment Letter which, by this reference is hereby incorporated into the Town's comments regarding the Draft Permit.

As a review of the SWVP Comment Letter indicates, in addition to other deficiencies, in approving the Draft Permit, EPA: (i) failed to exercise reasonable care in drafting the UIC Permit; (ii) adopted an improper and illegal aquifer exemption; and (iii) needs to revise the deficient portions of the Draft Permit.

Finally, the Town resubmits to EPA its February 21, 2014 letter regarding the Draft Memoranda of Agreement under Section 106 of the National Historic Preservation Act concerning the proposed Florence Copper Production Test Facility in Florence, Arizona. Because the July 2014 Draft Memorandum of Agreement regarding the Florence Copper PTF that was attached to the Draft Permit as Exhibit "G" did not address the issues raised by the Town in the above February 21, 2014 correspondence, the Town is re-submitting the above correspondence for EPA's reconsideration.

Based on the above information being provided to EPA, the Town believes that the Draft Permit should be withdrawn by EPA so that EPA may address the deficiencies identified in the Draft Permit.

Very truly yours,

DICKINSON WRIGHT PLLC



Kenneth A. Hodson
For the Firm

KAH:kaa
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Town of Florence

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February 21, 2014

Mr. David Albright
Ground Water Office
Environmental Protection Agency - Region 9
75 Hawthorne Street
San Francisco, California 94105

Re: Draft Memorandum of Agreement under Section 106 of the National Historic Preservation - Proposed Florence Copper Production Test Facility, Florence, Arizona

Dear Mr. Albright,

Thank you for the opportunity to comment on the Draft Memorandum of Agreement (MOA) for the Florence Copper Production Test Facility.

The Town of Florence claims a government to government affiliation to the Section 106 process and therefore we appreciate the USEPA continuing solicitation of our input and efforts to address our concerns. We support the comments in the letters provided to the Advisory Council on Historic Preservation from the National Park Service and various Native American Communities, as well as the significance of the Escalante Ruins and its' Community in an area of potential effect being within or adjacent to the Town of Florence. We have now reviewed the *Memorandum of Agreement* provided and acknowledge again that most adverse effects will occur in association with full Project implementation being detrimental to the Escalante Ruins and its' Community pursuant to the NHPA. In-situ mine related construction activities impacts will result in indirect and cumulative adverse effects to historic properties.

It continues to appear that a level of potential injury to natural and cultural resources exists and because of the level of controversy involving this permit application remains high, the Town of Florence continues to request that the EPA prepare an environmental assessment (EA) or environmental impact statement (EIS) to best consider the potential impacts to natural and cultural resources as required by the National Environmental Policy Act (NEPA). As noted in the Finding of Adverse Effect, it is stated that the infrastructure improvements, transportation, monitoring and closure activities may have potential effect on the larger Curis Arizona private land property; thus it becomes of great concern to the Town of Florence that these effects are not properly addressed within the *Memorandum of Agreement* in regards to local regulations conformance.

We also propose that the attached stipulations and Attachment "A" be included within the MOA. The Town of Florence notes that the infrastructure improvements, transportation, monitoring, and closure activities involves construction related and operational activities on private land yet there has been no attempt by Curis to address local regulations via the Development Code of the Town of Florence as required by 36 CFR 800.4. This conformance is required for the entire area outside of the Arizona State Land parcel and in particular the 8.34 acres proposed for the Production Test Facility within the Town of Florence.

We also note that Florence Copper Inc. has yet to renew their Mineral Lease application (Florence Copper Application No. 11-26500) with the Arizona State Land Department. This application in itself has issues in regards to a) risks to the environment; b) permanent injury to cultural and historical assets, and c) incompatible land uses. Specifically the applicant did not provide a conclusive response on the Application relative to Hazardous Waste Generation and Hazardous Waste Treatment. Storage or disposal yet indicated utilization of hazardous substances.

The lack of an appropriate mineral lease on the Arizona State Land in itself merits further analysis by USEPA in assessing a proper cradle to grave Memorandum of Agreement acceptable to all consulting parties.

We strongly recommend that the particulars related to these and stipulations be incorporated into the HPTP/MOA. We appreciate the opportunity to provide these comments and especially appreciate the thoughtful discussion and deliberation provided by EPA and the project applicants in meeting their responsibilities under the National Historic Preservation Act. Currently the Treatment plan and EPA Memorandum of Agreement are inconsistent with the NHPA since future adverse effects have not been identified in specifics.

Finally, we anticipate that a minimum that further on-going consultation regarding the comments of others, and future MOA, and revisions to the Treatments Plan will be forthcoming in order to proper resolution to the adverse effects that were determined throughout the Curis property in regards to the PTF.

Thank you for allowing us to address our comments in regards to the Section 106 Consultation Process.

Sincerely,



Wayne J. Costa, P.E.
Director of Public Works
Town of Florence

cc: C. Montoya, TOF
J. Mannato, TOF
J. Knudson, TOF
L. Garcia, TOF
M. Eckhoff, TOF

Attachment A

Since the Memorandum of Agreement is silent on the ripple effects associated with adverse negative impacts outside of the PTF

The Memorandum of Agreement is silent on various air quality and water quality effects to regional historic and archaeological preservation associated with the accessibility of historic property that will be exposed to radioactive sediment, thus environmental enhancements should be developed for the PTF to meet the goals of the NEPA process and thus compliance with laws, regulations and policies in regard to a hazardous waste site and its impact on land use and social impacts.

Our previous submittal and in particular Attachments A and B of our submittal dated September 19, 2013 should be addressed in specifics rather than generalities either in the Memorandum of Agreement and or Treatment Plan as applicable. We therefore recommend that the entire Florence Copper Project site specifically be addressed in the draft MOA and Treatment Plans with the same level of review as the "Escalante Ruins".

STIPULATIONS

The following measures are needed to ensure the minimization of harm to the adverse effect.

1. All consulting parties will be given the opportunity to review and comment on the conceptual plans and construction plans prior to proceeding with the work to ensure adverse effects assessments are properly addressed.
2. Plan details including building and infrastructure footprints to include all site accessories and other features, dimensions and locations will be submitted to consulting parties for review and comment.
3. Plan details including final site plan, showing the location of access ways, staging areas, and other disturbed areas shall be submitted to all consulting parties for review and comment.
4. A thirty (30) day revised review period will be provided for consulting parties to comment for all reports and plans provided pursuant to this MOA.
5. The rights of the Town of Florence should be specific in spelling out its rights in regards to land use, access, and all Town Code requirements in regards to development within the APE.
6. An appropriate construction monitoring plan is in place during all phases of construction and project operation, outlining the monitoring efforts. All consulting parties shall be afforded opportunity to participate directly in Project monitoring activities as specified in the Treatment Plan with staff paid by Curis/Florence Copper Project.

ATTACHMENT "A"

As a result of the Site Tour and more importantly a review of the Historic Treatment Plan for the proposed Curis Resources (Arizona) Inc. Florence In-Situ Copper Recovery Project Production Test Facility, it is our opinion that the Treatment Plan diminishes the integrity of the historic property that will ultimately result in destruction of and damage to the properties while altering the physical features of the entire state land and private property that contributed to the historic significance of the properties. With all this in mind; the developing of any treatment to avoid, minimize, or mitigate the Adverse Effect on the historic properties requires the appropriate Programmatic Agreement or Memorandum (MOA).

The necessary mechanisms involved in treatment also requires the proper utilization of local regulations in regards to development to properly achieve smart growth of the Project considering access, utility requirements, drainage, and the necessary infrastructure; all of which should operate under the principles of proper coordination to meet the purposes and requirements of local regulations thus minimizing or mitigating any effect on historic properties. We have therefore assessed the effects of the Treatment Plan on the historic property as a whole:

1. The basis of the Treatment Plan in its' attempt to avoid, mitigate, and minimize the influence of construction and operational aspects of the PTF lack appropriate physical barriers to allow this process to proceed. At minimum physical barriers such as Jersey barriers should be provided for areas in which vehicular traffic will routinely pass or be utilized contiguous to historic properties. Likewise orange reflective stranded (commonly a.k.a. safety fencing) fencing would also be a deterrent to access by personnel and the like. Without saying the need to monitor these physical barriers are a must on a daily basis.
2. The air quality produced by radioactive sediment minimizes the accessibility of the historic properties to those who would enjoy the venue of the site. Proper monitoring of these Project areas by dosimeters or similar detection devices is a necessity due to the prolongation of the PTF and possible further expansion of the Project. ADEQ has indicated in their Public Hearing process that they are not governing authority for such environmental concerns and EPA has indicated hat they would not entertain any environmental review in accordance with the National Environmental Protection Act (NEPA).
3. It appears that wellhead protection or similar protection will transmit the waste into the immediate areas within the twenty-four 24 wells planned for the PTF. Please provide a detail of this protection as noted somewhat in the Drilling aspects of each well as noted on Page 10 of the Treatment Plan to include usage of the containment

area (in elevation) and the movement of such waste to any subsurface sub flows or surface areas.

4. Since the ground surface preparation consists of up to 3 inches of the surface, it is known that proper screening of this ground surface may provide small artifacts including friable particles that may need appropriate identification.
5. Page 11 of the Treatment Plan indicates that traffic and vibration are problematic in the area, however Section VI and IX are silent on any seismic monitoring of the areas, spill/leakage prevention of vehicles/equipment and similar vibratory and environmental issues that may lead to degradation of adjoining historic properties.
6. Insufficient and timely inspection and monitoring by the Agency (ADEQ) is lacking for the Production Test Facility (PTF) since ADEQ is separated by distance from the actual Project and thus must enhance its' surveillance activities to provide quality assurance or third party verification of the actual Treatment Plan. Third party independent full-time reconnaissance is a must for this Project for verification to ensure that the direct effects to be avoided, mitigated or minimized by the Treatment Plans are properly implemented and maintained. There are no checks and balances typically referred to as Quality Assurance/Quality Control that can determine if anomalous activities are detrimental to historic properties. This type of effort would help ensure the effective use of the avoidance, mitigation, and minimizing strategy utilized for the Project.
7. The installation of culvert (s) will adversely affect historic properties by continual erosion of the flow area; proper screening, cleaning, and maintenance will eliminate any loss of historic property.
8. A Preventative Maintenance, Facility Maintenance and Operational Maintenance Plan shall be provided for each piece of equipment, facility, and operation involved with the PTF to include maintenance of roads. Since the APP Program by ADEQ is restricted to the protection of groundwater rather than quality of life past or present; these plans are a necessity.
9. The Town of Florence has not received any proposal for the access road preparation as indicated in the Expanded Effects to Historic Properties on Page 11; previously unilateral grading of the area adjacent to Coors Road was performed without knowledge or indication to the Town of Florence. As a rule, Curis should submit the appropriate designs for the permitting of all infrastructures in accordance with the Development Code of the Town of Florence particularly of infrastructure placed on Curis' private land which is within the Town's limits.
10. Page 18 of the Treatment Plan in the Expected Effects to Historic Properties, the avoidable measures to protect the canal is not defined, Jersey barriers are recommended to permanently route traffic around the canal site.

11. On Page 19 of the Treatment Plan, storm water structures should be monitored daily or whenever an occurrence occurs, contrary to what is stated in the Sampling and Infrastructure Monitoring Activities paragraph. RE; Item 7 above.
12. The Project Closure paragraph states that it will take five (5) years for the closure to complete yet Section IX does not address the closure relevant to the Project reporting sequence.
13. The stockpiling, staging, laydown areas, borrow areas, access roads, and power line siting on private lands have not been properly addressed with the local regulations of the Town of Florence. These local regulations are primarily contained within the Development Code of the Town of Florence Code of Ordinances and are necessary to properly promote and protect the health, safety, and welfare of the residents of the Town. Furthermore, the regulations are to also ensure harmonious development within the Town to ensure all the purposes of the Development Code are followed in regards to the minimum requirements necessary for the promotion of the General Plan of the Town of Florence. 36 CFR 800.4 requires the adherence to local laws and regulations
14. The number of core holes to be abandoned is not consistent with the number of core holes indicated by ADEQ prior to injection as stated in their Responsiveness Summary dated July 5, 2013 in regards to the Temporary APP for the PTL. This Summary states consistently that 31 core holes will be abandoned, why the Treatment Plan does not addressed all the permitted core holes that are required to be abandoned and thus leaves a conduit for excursions of contaminants. The failure to recognize the proper number of core holes to be abandoned are deserving of additional investigation, documentation, and certainly mitigation in light of the differences between the Temporary APP and the Treatment Plan for the entire area affected by the Temporary APP and/or the Treatment Plan. Furthermore, the mere presence of these core holes may have an impact on the entire area affected by the PTF and not just isolated locations, it certainly is not proper methodology to mitigate or minimize the Adverse Effects on historic properties regardless of the core hole locations relative to historic properties. Any contaminants within the core holes do not have license plates on them!
15. The Treatment Plan calls for usage of private land within the Town of Florence yet the applicant for the permit fails to comply with applicable municipal ordinances and regulations required by the Development Code of the Town of Florence yet ADEQ and EPA relies on the town of Florence to support the logistical efforts of the operation through access, laydown/storage areas, administrative office facilities while being subject to the regulatory authority of the Town. It does not appear that

the Adverse Effect properly addresses future historic properties that are subject to these local regulations and the General Plan for the area. RE; 36 CFR 800.4.

16. ADEQ states in part in their Responsiveness Summary dated July 5, 2013 of the Public Hearing for the Temporary APP that the facilities can be constructed without prior authorization under an APP (however operations requiring discharge must be conducted under the Temporary APP for this PTF). Since the position of the EPA is assumed to be similar; the Town remains skeptical in what aspects of the Treatment Plan must be in-place prior to any construction of facilities since the Adverse Effect edict must be addressed?

The Treatment Plan states in part that the EPA has requested a larger Area of Potential Effect (APE) for both indirect and cumulative effects for the entire Curis property yet the Treatment Plan does not define these effects within the Treatment plan. The Report by Rice et Al, 2007 Historic Properties Treatment Plan for the Merrill Ranch Project (53 Cultural Resources), Pinal County, Arizona should be considered within the Treatment Plan as it pertains to the surrounding private land (including state land sites owned by ASLD) owned by Curis.

ATTACHMENT "B"

ENVIRONMENTAL

Both ADEQ and the EPA (at least in this case) is geared in the permitting process toward the protection of groundwater quality at the points of compliance and not necessarily other environmental issues that lie outside the permitted requirements in coordinating their efforts with issues such as air quality and radionuclide releasing airborne particles, etc. ADEQ clearly states in their Responsiveness Summary of July 5, 2013 in response to the Public Hearing on the Temporary Permit for the PTF that County, State, and Federal Programs have oversight for environmental concerns yet the coordinating of the NEPA is outside the purview of the EPA for this site despite the fact that:

1. ADEQ specifically stated in their Responsiveness Summary of July 5, 2013 for the PTL that their APP Program is not within the jurisdiction of the APP Program yet the additional traffic afforded to the operation of the PTF creates environmental concerns due to potential for acid spills and air quality of diesel truck necessary for operation of the PTF.
2. ADEQ will only monitor certain radionuclide in groundwater on a semi-annual basis, why do they not monitor that radionuclide that are on the Primary MCL of the Safe Water Drinking Act?
3. The temporary permit for the PTF indicates that the barren solution will be contained within the Process Water Impoundment whereby heavy metals out of bedrock may be contained as stored solutions, so the mineral loads may be of concern to personnel, wildlife, and quality of life both past and present.
4. ADEQ states in their Responsiveness Summary dated July 5, 2013 that the dilute sulfuric leach solution will be injected at depths of almost 500 feet which is basically the Holocene alluvium of which the sub flows of the Gila which are laid to claim by the GRIC Community and recognized by the State of Arizona (?).
5. The EPA Report (EPA 402-R-99-002) on "Technologically Enhanced Naturally Occurring Radioactive Materials in the Southwest Copper Belt of Arizona states that the Florence Copper Project (the historical past of which much reliance is given by ADEQ and the EPA) "the PLS produced from the Magma Florence in-situ Project contain very high levels of radionuclide and that they are leachable" yet this environmental hazard is ignored by the EPA in not addressing or coordinating NEPA standards into the Adverse Effect decree. The radiochemical found in association with the copper ore deposits that will be leached should be addressed to explain how impoundment pond sediment contributes to the environmental hazards at the PTF site whether disbursed in an airborne mode or transported/stored in a manner that affects the historic properties,

surface/subsurface areas, and long term effects of the sediment during the PTF life span which is not specific at this time at least through closure. The concern is that the radioactive materials may become concentrated in waste byproducts and become TENORM augmenting by the solvent extraction process. The applicability of Federal Superfund statutes and/or the RCRA should be evaluated relative to the historic properties that need to be avoided, mitigated, or minimized.

6. The Treatment Plan does not address protection that needs to be afforded the sub flows in the area that is linked to the saturated floodplain Holocene alluvium and the Winters Federally Reserve Water Rights at least environmentally. The sub flows are primarily directed toward the Gila River and any existing/new wells may impact these sub flows via drawdown and the like.



April 10, 2015

Town of Florence
c/o Mr. Ken Hodson, Esquire
Dickinson Wright, PLLC
1850 N. Central Avenue, Suite 1400
Phoenix, Arizona 85004

SUBJECT: SUMMARY OF PREVIOUS WORK COMPLETED FOR THE TOWN OF FLORENCE HIGHLIGHTING THE IMPORTANCE OF AREA GROUNDWATER RESOURCES IN REGARDS TO THE USEPA DRAFT UIC PERMIT FOR FLORENCE COPPER

Dear Mr. Hodson:

Southwest Ground-water Consultants, Inc. (SGC) is pleased to provide this summary letter report of previous work completed for the Town of Florence by SGC. This work highlights the importance of protecting groundwater resources in the Town of Florence Planning Area, especially in the area of the proposed Florence Copper, Incorporated (FCI) Pilot Test Facility (PTF). The location of the FCI PTF and its location within the Town of Florence Planning Area are shown in Figure 1, included in Attachment 1.

The Town's Designation of Assured Water Supply (DAWS) was approved by the Arizona Department of Water Resources (ADWR) in 1999. Due to anticipated future development in the area, in 2011, SGC prepared a Modification to the DAWS for the Town. The Modification was presented to ADWR to request an increase in the approved water supply to a total annual demand of 33,310 ac-ft/yr projected for the year 2025. The projected future water demand was based on a Water Master Plan, which was prepared for the Town by Fluid Solutions.

The primary water supply available to the Town of Florence consists of groundwater from the Lower Basin Fill Unit (LBFU) of the regional alluvial aquifer. The LBFU is generally found in the area at depths greater than 400 feet below land surface (bls). Other units within the regional alluvial aquifer include the Upper Basin Fill Unit (UBFU) and the Middle Fine-Grained Unit (MFGU). The UBFU is mostly saturated and is a source of drinking water, but is typically not targeted due to higher nitrate concentrations resulting from agricultural activities. The MFGU, which is also saturated, separates the UBFU and the LBFU. The MFGU is locally discontinuous and is not a targeted source of drinking

water. Water to meet projected demand for the Town of Florence will be provided by existing and *future* wells producing water primarily from the LBFU.

As part of the application submitted to ADWR, SGC prepared a hydrologic study demonstrating the physical availability of ground water to Florence for 100 years using historic and existing hydrologic data in conjunction with current ground-water models developed for the region. SGC conducted an impact analysis simulating pumping an estimated 33,310 ac-ft/yr for Florence using four existing wells and twenty-nine proposed wells spread throughout the Florence Planning Area. Florence is the owner of the existing wells and will install additional wells in the future as needed. A location map showing the Florence Planning Area and the simulated wells is presented on Figure 2, (Attachment 1). A summary of the wells used in the simulation is presented below.

ADWR Registration Number	Florence Well Name	Cadastral Location	Casing Depth (ft bls)	Water Level (ft bls)	Saturated Thickness (ft)	Pump Capacity (gpm)
55-610433	#1	D(4-9)25 BDC	350	179	171	1,400
55-215446	#3B	D(4-9)36 CAC	736	194	541	1,600
55-619533	#4	D(4-9)36 CAC	375	194*	181*	850
55-619534	#5	D(5-9)2 ADA	562	194*	368*	1,300
South Proposed Well	N/A	D(5-9)1 CCB	1083*	225*	858**	1,600*
Proposed Well #1	N/A	D(5-9)3 CBB	852*	190*	662**	1,600*
Proposed Well #2	N/A	D(5-9)3 BAB	830*	190*	640**	1,600*
Proposed Well #3	N/A	D(5-9)6 DAB	832*	130*	702**	1,600*
Proposed Well #4	N/A	D(5-9)5 ACA	838*	149*	689**	1,600*
Proposed Well #5	N/A	D(5-10)6 DBB	1000*	139*	948**	1,600*
Proposed Well #6	N/A	D(4-10)31 DAD	1000*	230*	848**	1,600*
Proposed Well #7	N/A	D(5-9)10 DBB	905*	116*	789**	1,600*
Proposed Well #8	N/A	D(5-9)12 CAA	1000*	152*	905**	1,600*
Proposed Well #9	N/A	D(5-10)8 DBB	1000*	222*	872**	1,600*
Proposed Well #10	N/A	D(5-9)16 ACC	968*	115*	853**	1,600*
Proposed Well #11	N/A	D(5-9)14 ACC	1000*	165*	908**	1,600*
Proposed Well #12	N/A	D(5-10)18 ACC	1000*	215*	907**	1,600*
Proposed Well #13	N/A	D(5-10)12 ACC	1000*	304*	761**	1,600*
Proposed Well #14	N/A	D(4-9)32 BAB	1000*	165*	1035**	1,600*
Proposed Well #15	N/A	D(5-9)22 BDD	1000*	159*	991**	1,600*
Proposed Well #16	N/A	D(5-9)24 CAB	1000*	201*	951**	1,600*
Proposed Well #17	N/A	D(5-10)20 ACC	1000*	280*	860**	1,600*
Proposed Well #18	N/A	D(5-9)30 DBB	1000*	108*	1545**	1,600*
Proposed Well #19	N/A	D(5-9)28 BDD	1000*	154*	1272**	1,600*
Proposed Well #20	N/A	D(5-9)26 BDD	1000*	194*	1099**	1,600*



ADWR Registration Number	Florence Well Name	Cadastral Location	Casing Depth (ft bls)	Water Level (ft bls)	Saturated Thickness (ft)	Pump Capacity (gpm)
Proposed Well #21	N/A	D(5-10)30 DBB	1000*	262*	920**	1,600*
Proposed Well #22	N/A	D(5-10)28 BDD	1000*	355*	773**	1,600*
Proposed Well #23	N/A	D(5-9)36 BDD	1000*	241*	1056**	1,600*
Proposed Well #24	N/A	D(5-10)32 BDD	1000*	319*	861**	1,600*
Proposed Well #25	N/A	D(4-9)32 ACA	1000*	165*	835**	1,600*
Proposed Well #26	N/A	D(4-10)3 CDB	1000*	173*	882**	1,600*

* Estimated value

** Aquifer saturated thickness based on total model layer thicknesses less the estimated water level. Well completion in this area not anticipated to include the full aquifer depth in most cases.

As noted in the table above, all of the *proposed* wells are planned to be cased to a depth of 1,000 feet bls, and would thereby produce water from the LBFU. In the pumping simulation, wells were placed accordingly to meet future projected demands. The locations were selected based on expected aquifer conditions such as depth to bedrock and to accommodate spacing issues with existing wells. It is expected that the actual future well locations may vary depending on conditions encountered at the time those wells would need to be installed.

The modeling conducted by SGC in support of the Town of Florence DAWS also indicated that simulated future pumping for some nearby Johnson Utilities wells could not be sustained long term due to the shallow aquifer depth at their present locations. In the 2011 Modification prepared by SGC for the Town, those wells were relocated in the simulations to portions of Johnson Utilities service area just west of the FCI property where the aquifer basin was deeper. Those locations within the Johnson Utilities Service Area were selected as the most optimal in regards to basin depth. As shown in Figure 2 (Attachment 1), at that time most of the relocated wells are directly downgradient of the FCI PTF. It is important to note that Figure 2 contains the exact data from the original Figure 12 from the DAWS Modification and has simply been enlarged for clarification purposes. The original Figure 12 from the DAWS Modification is included in Attachment 1.

As is demonstrated in this summary, future demand for water resources in the area of the proposed FCI PTF is high and the portion of the regional alluvial aquifer that is most critical and requires the most protection is the LBFU. The Town of Florence is concerned that, for reasons stated more fully in the Southwest Value Partners (SWVP) comments, EPA's approval of the FCI UIC permit may result in degraded aquifer conditions in the LBFU.



Mr. Ken Hodson, Esquire
April 10, 2015
Page 4 of 4

If you have any questions or require additional information, please call.

Sincerely,
Southwest Ground-water Consultants, Inc.

A handwritten signature in black ink, appearing to read 'Kevin Hebert', with a stylized flourish at the end.

Kevin Hebert, P.G.
Project Geologist

Attachment 1: Figures 1, 2, and 12



ATTACHMENT 1

Figures 1, 2, and 12







